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Andrew Mackenzie

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EXAMINER

DICKERSON, CHAD S

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/661,001	Applicant(s) MACKENZIE ET AL.	
	Examiner Chad Dickerson	Art Unit 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-54 is/are pending in the application.
- 4a) Of the above claim(s) 15, 37-48, 51 and 52 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14, 16-36, 49, 50, 53 and 54 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>see attached</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-14, 16-36, 49, 50, 53 and 54 are drawn to a printer and a method of printing that includes providing printing instructions, generating a pattern at the printer using the pattern information independent from the printer instructions and printing a document that comprises both a pattern and content, classified in class 358, subclass 3.28.
 - II. Claims 15, 37-48, 51 and 52, drawn to a photocopier with an optical scanner for scanning a document, an image processor for performing a processing step on the output signals produced by the scanner and a printer responsive to the modified image signals for printing a modified image, classified in class 358, subclass 505.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions Group I and Group II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct if they do not overlap in scope and are not obvious variants, and if it is shown that at least one subcombination is separately usable. In the instant case, subcombination Group II has separate utility such as being used as a photocopier used to scan a document, modify the document and print a document with an embedded pattern of positional markings,

which are detectable by a suitable detection system and used to distinguish different positions on documents. See MPEP § 806.05(d).

3. The examiner has required restriction between subcombinations usable together. Where applicant elects a subcombination and claims thereto are subsequently found allowable, any claim(s) depending from or otherwise requiring all the limitations of the allowable subcombination will be examined for patentability in accordance with 37 CFR 1.104. See MPEP § 821.04(a). Applicant is advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, a claim that is allowable in the present application, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application.

4. Because these inventions are independent or distinct for the reasons given above and there would be a serious burden on the examiner if restriction is not required because the inventions have acquired a separate status in the art in view of their different classification, restriction for examination purposes as indicated is proper.

5. Because these inventions are independent or distinct for the reasons given above and there would be a serious burden on the examiner if restriction is not required because the inventions require a different field of search (see MPEP § 808.02), restriction for examination purposes as indicated is proper.

6. During a telephone conversation with Applicant's Representative Daniel Roberts (REG. No. 52172) on 9/5/2007 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-14, 16-36, 49, 50, 53 and 54. Affirmation of

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this election must be made by applicant in replying to this Office action. Claims 15, 37-48, 51 and 52 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Drawings

7. The drawings are objected to under 37 CFR 1.83(a) because they fail to show in figure 9, the elements of the photosensitive drum (919) and the paper (923) on page 33, figure 3, the element of the local paper lookup service (LPLS) (309) on page 16, figure 4, the element (311), on page 17, figure 6, step 610, on page 19, as described in the specification.

8. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the

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appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

9. The disclosure is objected to because of the following informalities:

- On page 20, line 6: the element number "306" that refers to the EPLS server, is suggested to be changed to -- 304 --.
- On page 25, line 29: the word "patter" is suggested to be changed to the word -- pattern --.

Appropriate correction is required.

Claim Objections

10. Claims 10, 12 and 36 are objected to because of the following informalities:

- Re claim 10: on line 29, the phrase "cover and area" is suggested to be changed to the phrase -- cover an area --.

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- Re claim 12: on line 8, the phrase "the host device" is suggested to be changed to -- a host device --.
- Re claim 36: it is suggested to place a period at the end of the claim sentence.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

11. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

12. Claims 26-31 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Re claim 26: An application is interpreted as a computer program to be applied onto the printer. An application, or a computer program, does not fit one of the four statutory categories (i.e. process, machine, manufacture, or composition of matter). If this application is a physical printer, it is suggested to produce a claim similar to the other apparatus claims. If the application is a computer program, in order for it to be considered as statutory, the claim needs to have some instructions stored or encoded on a computer readable medium in order for a computer to realize the functionality of the program. Dependent claims 27-31 are also rejected.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

13. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

14. Claims 26-31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re claim 26: the phrase "a printing application" renders the claim indefinite. Does the printing application deal with a printing computer program or does this deal with an physical printer being called as a printing application? The claim will be given the broadest reasonable interpretation.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

15. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

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only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

16. Claims 1-8, 10, 11, 13, 14, 16-18, 20-36, 49, 50, 53 and 54 are rejected under 35 U.S.C. 102(e) as being anticipated by Silverbrook '573 (US Pat No 6987573).

Re claim 1: Silverbrook '573 discloses an interface surface printer comprising:

providing to a printer a set of print instructions which define the content of a document (i.e. in the system of Silverbrook '573, a netpage printer is able to receive a page description, or print instructions, describing the content of a document. The content in Silverbrook '573 refers to the physical graphics and images that can be seen on the sheet when printed. This printed page is referred to as a netpage; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67 and col. 8, lines 1-35);

generating at the printer a pattern using pattern information that is independent from the print instructions (i.e. the netpage printer is used to print, or generate, a pattern using coded data information and is associated with the print instructions for the visible document information. Accompanied with the coded data is a page ID which represents the location of the document the tag with the page ID is located. Since the print instructions are separate from the coded data encoded in a tag, the page description and the encoded data are both independent from one another; see fig. 4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67 and col. 8, lines 1-35); and

printing a document that comprises both the content and the pattern (i.e. when the netpage is printed on the system, the document has a visible layout consisting of

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text, graphics or images and invisible coded data, considered as the pattern, in the netpage; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67 and col. 8, lines 1-35).

Re claim 2: The teachings of Silverbrook '573 are disclosed above.

Silverbrook '573 discloses the method of claim 1 in which the print instructions include at least one pattern instruction indicating that a pattern is to be added by the printer to the document (i.e. the netpage printer in Silverbrook '573 can receive the coded data layout to be printed on a document. This is considered to be a pattern instruction since the computer system in Silverbrook '573 can send information indicating that coded data of a certain layout should be added to a document by the netpage printer; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35 and col. 14, lines 1-43) and the printer adds a pattern to the printed document in response to the at least one pattern instruction (i.e. once the netpage printer receives document data and tag ID information associated with the document data, the netpage printer interprets the tag and prints the coded data associated with the document data; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35 and col. 14, lines 1-43).

Re claim 3: The teachings of Silverbrook '573 are disclosed above.

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Silverbrook '573 discloses the method of claim 2 in which the pattern instruction comprises a pattern ID and in which the step of generating the pattern at the printer comprises adding a portion of pattern identified by the ID (i.e. when a computer system, or server, sends a request for a document to be printed on the netpage printer, the page description that consists of both graphic image data and coded data is sent to the printer. The coded data sent to the printer comprises a page ID location within the actual document. This page ID location tag is used to tell the printer to print the tag content in that specific region or location. This tag can appear either on the whole surface of the page or on a subregion of the page. If the tag appears on a subregion on a page, the printer adds the coded data on that portion of the document and this performs the feature of adding a portion of pattern identified by the ID, since this is identified by the tag with a page ID position; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35 and col. 14, lines 1-43).

Re claim 4: The teachings of Silverbrook '573 are disclosed above.

Silverbrook '573 discloses the method of claim 2 in which the pattern instruction comprises an address or an instruction corresponding to an address (i.e. included in the netpage page ID (50) is a network address of the netpage page server that handles the corresponding page instance, or digital printed data that consists of the coded data; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35, col. 13, lines 1-67 and col. 14, lines 1-43), and

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the step of generating the pattern comprises causing the printer to request an appropriate pattern from a server having a network address identified by the pattern instruction (i.e. when the printer prints out netpage documents, the printer requests the information regarding the coded data from the netpage application and publication servers (13 and 14). The netpage publication server communicates with the printer the information regarding the visible layout of information and the handling of the netpage page ID. Here, the printer goes to the server through the IP address, using the DNS system, and request that the server determine the page instance in the current document. The page instance is represents the coded data in the document that interacts with the pen used in the system; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35, col. 13, lines 1-67 and col. 14, lines 1-43).

Re claim 5: The teachings of Silverbrook '573 are disclosed above.

Silverbrook '573 discloses the method of claim 1 in which the pattern is allocated to the document at the printer after initiating the transmission of the document instructions to the printer (i.e. when the netpage printer sends information regarding the interaction between the netpage and the netpage pen, the printer receives information that is transmitted from a netpage application server and the printer performs printing. The information sent from the server is print instructions regarding a document and coded data related to that document; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30,

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col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35, col. 13, lines 1-67 and col. 14, lines 1-43).

Re claim 6: The teachings of Silverbrook '573 are disclosed above.

Silverbrook '573 discloses the method of claim 1 in which a pattern is allocated to the document prior to sending the document to the printer and in which the instructions sent to the printer include a plurality of pattern instructions (i.e. while the netpage is still at the server, the netpage is made up of a plurality of document and page instances. The page instances represent the invisible coded data and the tags associated with the data. This information is developed before it is transmitted to the netpage printer for printing. The document sent to the printer consists of a plurality of instances that represent the coded data, to be printed on the documents once the documents reach the printer; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35, col. 13, lines 1-67 and col. 14, lines 1-43),

each one indicating the location of a pattern marking on the document (i.e. within the netpage, there are a plurality of invisible tags that represent the location of coded data in the document. The coded data is invisible marking that interacts with the netpage pen; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35, col. 13, lines 1-67 and col. 14, lines 1-43) and

in which the printer generates the pattern to be printed by creating the appropriate position indication marking for each location (i.e. the netpage printer recognizes the visible graphic data and the tags associated with the coded data and prints both on the document of interest. The invisible tags have page ID position information representing the tag's position on the page. Since the tags can be all over a page or in certain subregions of the page, the feature of creating the position indication marking for each location is performed; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35, col. 13, lines 1-67 and col. 14, lines 1-43).

Re claim 7: The teachings of Silverbrook '573 are disclosed above.

Silverbrook '573 discloses the method of claim 6 in which the printer includes a look-up table or library in a memory which stores instructions which tell the printer how to produce a position identification marking for use in creating the pattern (i.e. in Silverbrook '573, alternatively, the printer can include a storage medium that stores different coded data layouts to be used when printing a document that includes coded data. The tags used are for identifying a region of the page it is printed on. With the printer capable of having a storage medium with coded data layouts telling the printer how to print certain layouts of coded data, which consists of position identifying markings for use in the coded data, the above feature is performed; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35, col. 13, lines 1-67 and col. 14, lines 1-43)..

Re claim 8: The teachings of Silverbrook '573 are disclosed above.

Silverbrook '573 discloses the method of claim 6 in which the printer includes a raster image processor which receives the print instruction set (i.e. when the page descriptions are received by the netpage printer, the page descriptions are rasterized by the RIP; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35, col. 13, lines 1-67 and col. 14, lines 1-43) and is adapted to retrieve a bitmap corresponding to each position indication marking identified by a pattern instruction contained in the print instructions from the library (i.e. once the netpage is rasterized, the coded data along with the regular data are both developed into a bitmap. Conventionally, the process of rasterization is the development of the data being RIPed becoming bitmap data. The tags are rasterized and stored in the page image. The tags are the position identification markings that are identified by the coded data that are apart of the page description, which includes page instance instructions. The coded data layout is capable of being from the storage medium in the printer; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35, col. 13, lines 1-67, col. 14, lines 1-43, col. 47, lines, 55-67 and col. 48, lines 1-23).

Re claim 10: The teachings of Silverbrook '573 are disclosed above.

Silverbrook '573 discloses the method of claim 1 in which the printer includes a look-up table in a memory which stores a pattern which is sufficient to cover and area larger

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than the area of a document to be printed (i.e. in figure 1, it is clear that the tags on the page can be placed in a manner that is larger than the area of the document that is printed on. With the server or printer capable or having a storage medium to store coded data layouts, the feature of having a look-up table in a memory which stores a pattern is performed; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35, col. 13, lines 1-67 and col. 14, lines 1-43) and in which the pattern instruction identifies the location of a portion of the stored pattern to be printed on the document (i.e. the page instances sent to the printer to print out a netpage includes instructions that tell the printer what region to print the coded data on the document. The coded data used can be the whole of the coded data to cover the whole document or a portion of the coded data to only cover a portion of the document; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35, col. 13, lines 1-67 and col. 14, lines 1-43).

Re claim 11: The teachings of Silverbrook '573 are disclosed above.

Silverbrook '573 discloses the method of claim 1 in which the printer is adapted to produce a bitmap corresponding to the content and a bitmap corresponding to the pattern and in which the two bitmaps are combined to produce a bitmap for the document to be printed (i.e. in the conventional sense, when rasterization is performed, a bitmap is produced. The RIP in the system rasterizes the graphic or image data and it also rasterizes the coded data. The coded data is then stored with the page image data

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to produce two bitmaps corresponding to one document to be printed; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35, col. 13, lines 1-67, col. 14, lines 1-43, col. 47, lines, 55-67 and col. 48, lines 1-23).

Re claim 13: The teachings of Silverbrook '573 are disclosed above.

Silverbrook '573 discloses the method of claim 1 in which the printer is arranged to add a different pattern to each copy of a document that it prints from a set of print instructions (i.e. in the system of Silverbrook '573, the same page descriptions can be shared, but in order to distinguish the pages, a unique page identifier is assigned to each page. The page ID is different ages printed in the system and this performs the above feature; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35, col. 13, lines 1-67, col. 14, lines 1-43).

Re claim 14: Silverbrook '573 discloses an interface surface printer, the apparatus including

a printer having an interpreting means arranged to create the pattern to be printed in response to receipt of a set of print instructions (i.e. when the printer receives information regarding the image data and the coded data to be printed on the printer, the printer takes the instructions sent from the server and interprets page description to print out coded data, considered as the pattern, in response to the received instructions

from the server; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67 and col. 8, lines 1-35),

the print instructions defining the content of the document using pattern information that is separate from the print instructions (i.e. the netpage printer is used to print, or generate, a pattern using coded data information and is associated with the print instructions for the visible document information. Accompanied with the coded data is a page ID which represents the location of the document the tag with the page ID is located. Since the print instructions are separate from the coded data encoded in a tag, the graphic data in the page description and the encoded data are both independent from one another; see fig. 4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67 and col. 8, lines 1-35).

Re claim 16: The teachings of Silverbrook '573 are disclosed above.

Silverbrook '573 discloses the apparatus of claim 14 in which the print instructions include at least one pattern instruction indicating that a pattern is to be printed on the document (i.e. the netpage printer in Silverbrook '573 can receive the coded data layout to be printed on a document. This is considered to be a pattern instruction since the computer system in Silverbrook '573 can send information indicating that coded data of a certain layout should be added to a document by the netpage printer; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35 and col. 14, lines 1-43) and the printer adds a pattern to the printed document in response to the at least one pattern instruction (i.e. once the

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netpage printer receives document data and tag ID information associated with the document data, the netpage printer interprets the tag and prints the coded data associated with the document data; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35 and col. 14, lines 1-43).

Re claim 17: The teachings of Silverbrook '573 are disclosed above.

Silverbrook '573 discloses the apparatus of claim 14, further comprising:

a printing application stored on a host device which is arranged to receive a file defining the content of the document (i.e. when the printer receives interaction from the netpage pen to edit a document to be printed, the printer sends the request to the server. The server, considered as the host device, has an application stored on the server. The printer sends the server the document, which defines the changes that occurred to the document and the overall page description of the document. The page description is sent to a relevant server for interpretation and then the document is further processed before being sent back to the printer; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35 and col. 14, lines 1-43) and

to generate a set of print instructions which comprise instructions that define the content of the document to be printed (i.e. the server is used to generate print instructions for the printer to print out a document with page description sent to the printer. The page description defines the content of the document to be printed; see

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figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35 and col. 14, lines 1-43) and

at least one pattern instruction which indicates that a pattern is to be included in the printed documents (i.e. when the page description is sent to the printer, the printer translates the page description and prints out a document that has graphic image data that is visible and tags that are coded data, considered as the pattern. There can be multiple page ID location tags in the page description that describes the tags in the document; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35 and col. 14, lines 1-43).

Re claim 18: The teachings of Silverbrook '573 are disclosed above.

Silverbrook '573 discloses the system of claim 17 in which the interpreting means comprises a raster image processor and in which the print instructions produced by the host device are in a page description and/or print job language (i.e. the printer has a RIP and the print instructions sent to the printer that are produced by a server, considered as the host device, are in a page description; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35 and col. 14, lines 1-43).

Re claim 20: The teachings of Silverbrook '573 are disclosed above.

Silverbrook '573 discloses the system of claim 16 in which the pattern instruction comprises a network address and in which the printer includes a network connection to

a processor identified by the network address (i.e. using the DNS method, the printer is able to connect to the netpage page server that corresponds to the page instance that is present in a document; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35, col. 13, lines 1-67, and col. 14, lines 1-43),

pattern request means for requesting pattern from the processor (i.e. when the printer recognizes action of the netpage pen, the printer may send a signal to the appropriate server to obtain the representation of the document and have it sent to the printer. The printer will be sent both the document visible data and the coded data. When trying to resolve the page instance, a DNS procedure is performed to realize the page instance in association to the page ID, which is embedded in the document through tags; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35, col. 13, lines 1-67, and col. 14, lines 1-43), and

pattern receiving means for receiving from the processor an appropriate pattern in response to the pattern request (i.e. the printer is able to receive the appropriate pattern from the transmitting server in order to print out the receiving document with both visible data and coded data. In response to the printer's request to resolve the page instance in the document, the server sends the appropriate information so that this page ID tag can be realized in the document; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35, col. 13, lines 1-67, and col. 14, lines 1-43).

Re claim 21: The teachings of Silverbrook '573 are disclosed above.

Silverbrook '573 discloses the system of claim 20 in which the pattern requesting and receiving means comprises program instructions stored in a memory of the processor which are executed whenever the RIP processes a pattern instruction in a print instruction set (i.e. in the printer resides both a RIP and a controller for the whole system. The flash memory (658) shown in fig. 63, is used to store the software for the commands for both the processor and the RIPs (DSPs) used in the system of the netpage printer; see col. 46, lines 53-67, col. 47, lines 1-67 and col. 48, lines 1-22).

Re claim 22: Silverbrook '573 discloses an interface surface printer which includes a pattern of position identification markings (i.e. the tags within the document printed by the netpage printer is used to have pattern of tags that have coded data in the tags identifying the positions in the different regions of the document; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35, col. 13, lines 1-67, and col. 14, lines 1-43) which includes:

means for receiving a print file containing a set of print instructions for the printing of a document (i.e. the netpage printer is configured to receive a file representing the page description of a file to be printed. The page descriptions contain a set of print instructions to be interpreted by the printer for printing out the incoming document from a server in the system; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5,

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lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35, col. 13, lines 1-67, and col. 14, lines 1-43), and

means for creating the required pattern in response to at least one pattern instruction contained in the print file using pattern information that is obtained independently from the print file (i.e. the page description consists of the page description and the page instances that represent the coded data. These are both transmitted to the respective printer, but are independent of each other since the layout of the visible information can be the same, but the arrangement of the coded data can be different from a previous document representation of the same document. The printer create a pattern due to the received pattern instruction from the server, which also transmits the visible document information for the visible layout of the document; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35, col. 13, lines 1-67, and col. 14, lines 1-43).

Re claim 23: The teachings of Silverbrook '573 are disclosed above.

Silverbrook '573 discloses the printer of claim 22 in which the print instructions include at least one print instruction that comprises a pattern ID (i.e. when a computer system, or server, sends a request for a document to be printed on the netpage printer, the page description that consists of both graphic image data and coded data is sent to the printer. The coded data sent to the printer comprises a page ID location within the actual document. This page ID location tag is used to tell the printer to print the tag content in that specific region or location. This tag can appear either on the whole

surface of the page or on a subregion of the page. If the tag appears on a subregion on a page, the printer adds the coded data on that portion of the document and this performs the feature of adding a portion of pattern identified by the ID, since this is identified by the tag with a page ID position; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35 and col. 14, lines 1-43).

Re claim 24: The teachings of Silverbrook '573 are disclosed above.

Silverbrook '573 discloses the printer of claim 22 in which the pattern instruction comprises an address (i.e. using the DNS method, the printer can go the address of the server to resolve, or to design, the page instance that is associated with the page ID represented in a tag; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35, col. 13, lines 1-67 and col. 14, lines 1-43), the method comprising at the printer requesting an appropriate pattern from a server identified by the address (i.e. when using the DNS method of resolving a page instance, which represents coded data, the printer communicates with a certain address of a server that is able to help resolve the page instance used in a netpage document. If the printer realizes an action by a netpage printer, the printer transmits the action information to the server and requests a print out of the netpage if any editing occurred, which includes requesting the respective coded data that accompanies the netpage document; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines

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1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35, col. 13, lines 1-67, and col. 14, lines 1-43), and

adding the pattern received in response to the request to the document bitmap (i.e. once the coded data information is received, the document data is bitmapped and the coded data is bitmapped after rasterization of both. Then the two types of data are combined together, or the coded data bitmap is added to the visible document data, to form one netpage; col. 47, lines 1-67 and col. 48, lines 1-22).

Re claim 25: The teachings of Silverbrook '573 are disclosed above.

Silverbrook '573 discloses the printer of claim 22 in which the print instructions include a plurality of pattern instructions which each indicate the location of at least one position identification marking in the document (i.e. in the system, a page ID represented by a tag can have one tag representing a subregion, or more than one tag across the whole document that indicates multiple locations because of the page instance instructions included in the command to print a document; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35, col. 13, lines 1-67, and col. 14, lines 1-43),

the printer generating the pattern marking to be provided at the indicated location independent of the content of the print instructions (i.e. once the printer receives instructions regarding the visible document information and the coded data information, the printer produces a print out of a netpage with both types of data represented in the netpage; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and

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col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35, col. 13, lines 1-67, and col. 14, lines 1-43).

Re claim 26: The teachings of Silverbrook '573 are disclosed above.

Silverbrook '573 discloses a printing application which is arranged to receive a file defining a document to be printed and to produce a set of print instructions (i.e. in the system, the printer receives a file from the netpage server that defines the document to be printed in a page description and the page description creates, or produces, a set of printing instructions for the printer to print the corresponding netpage for the page description; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35, col. 13, lines 1-67, and col. 14, lines 1-43) which comprise

instructions that define the content of the document to be printed (i.e. using the page description, the visible content of a document is defined by the server application's file sent to the printer; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35, col. 13, lines 1-67, and col. 14, lines 1-43) and

at least one pattern instruction which when interpreted by a printer causes the printer to provide a position indication marking pattern on the printed document (i.e. the server also has an application to produce instructions that characterize the page and document instances that are represented by coded data included in the printed document through tags. Once the printer receives the instances of the netpage

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document, the printer prints out coded data elements, represented by tags, based on the instructions received. The instructions could include a tag in a subregion or a plurality of tags on the whole of the document; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35, col. 13, lines 1-67, and col. 14, lines 1-43).

Re claim 27: The teachings of Silverbrook '573 are disclosed above.

Silverbrook '573 discloses the printing application of claim 26 in which the print instructions include at least one pattern instruction that comprises a pattern ID (i.e. when a computer system, or server, sends a request for a document to be printed on the netpage printer, the page description that consists of both graphic image data and coded data is sent to the printer. The coded data sent to the printer comprises a page ID location within the actual document. This page ID location tag is used to tell the printer to print the tag content in that specific region or location. This tag can appear either on the whole surface of the page or on a subregion of the page. If the tag appears on a subregion on a page, the printer adds the coded data on that portion of the document and this performs the feature of adding a portion of pattern identified by the ID, since this is identified by the tag with a page ID position; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35 and col. 14, lines 1-43).

Re claim 28: The teachings of Silverbrook '573 are disclosed above.

Silverbrook '573 discloses the printing application of claim 26 in which the pattern instruction comprises a network address of a processor which can supply pattern to the printer (i.e. when the printer needs to resolve a page instance within a netpage, the printer uses the DNS method to connect with the server in order for the server to supply the respective page ID tag to the printer; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35, col. 13, lines 1-67, and col. 14, lines 1-43).

Re claim 29: The teachings of Silverbrook '573 are disclosed above.

Silverbrook '573 discloses the printing application of claim 26 in which the pattern instructions include a plurality of pattern instructions which each indicate the location of at least one position identification marking in the document without indicating the appearance of the marking at each location (i.e. when the server sends information to the printer for a document to be printed, the instructions for printing includes an instruction that indicates the location of one or more tags, considered as position identification markings, in the document. This is performed in the instructions while not indicating the appearance of the tag at a location in the visible and physical document; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35, col. 13, lines 1-67, and col. 14, lines 1-43), the instructions being provided in a language that can be interpreted by a printer (i.e. the server communicates to the printer in a language that the printer can interpret and understand; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and

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col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35, col. 13, lines 1-67, and col. 14, lines 1-43).

Re claim 30: The teachings of Silverbrook '573 are disclosed above.

Silverbrook '573 discloses the application of claim 26 which comprises a printer driver or a filter which receives a file containing program instructions defining a document from a document processing application and passes the instructions to a printer driver after having added the pattern instructions to the file (i.e. the printer has a processor and a RIP. The processor is used to receive a file containing program instructions defining a document from a server, considered as a document processing application. The processor is considered as a printer driver since it drives the functions of the printer. The server used in the invention transmits the instructions, or page description, of a document to print after the document and pages instances, or tags, are added to the overall document information; col. 47, lines 1-67 and col. 48, lines 1-22).

Re claim 31: The teachings of Silverbrook '573 are disclosed above.

Silverbrook '573 discloses the printing application of claim 26 which is adapted to generate a set of different patterns or portions of pattern (i.e. in order to distinguish the different netpages from one another, a different set of coded data must be developed for a large number of documents. The coded data can be on the whole of a document, or on a subregion of a document, which is analogous to patterns or portions of pattern;

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see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35, col. 13, lines 1-67, and col. 14, lines 1-43) and

to produce a set of different copies of an original document (i.e. the user is able to change the physical layout of the visible data as well. The different copies can be different from one user to another or different from one layout to another; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35, col. 13, lines 1-67, and col. 14, lines 1-43) by combining the content with one of the set of different patterns (i.e. in order to distinguish different users who may choose to have the same visible layout, the system gives these layouts different coded data, or tags. The different coded data, or tags, are arranged differently for each netpage; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35, col. 13, lines 1-67, and col. 14, lines 1-43).

Re claim 32: Silverbrook '573 discloses an interface surface printer comprising:

receiving a set of print instructions defining the content of a document (i.e. in the system of Silverbrook '573, a netpage printer is able to receive a page description, or print instructions, describing the content of a document. The content in Silverbrook '573 refers to the physical graphics and images that can be seen on the sheet when printed. This printed page is referred to as a netpage; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67 and col. 8, lines 1-35);

generating a set of different patterns of position identification markings (i.e. in the system, different sets of coded data, or tags, can be developed in the system. These tags represent the portion of the image where they are located. Since the tags can be on a subregion or on the whole of the document, the feature of different patterns of position identification markings is performed; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35, col. 13, lines 1-67, and col. 14, lines 1-43); and

printing a plurality of copies of the document in which each printed copy comprises both the content and one of the patterns of the set (i.e. in order to distinguish different users who may choose to have the same visible layout, the system gives these layouts different coded data, or tags. The different coded data, or tags, are arranged differently for each netpage. The system is able to allow printing of a plurality of copies of a document with different sets of coded data, or tags, embedded within them; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35, col. 13, lines 1-67, and col. 14, lines 1-43).

Re claim 33: Silverbrook '573 discloses an interface surface printer comprising:

receiving means for receiving a set of print instructions defining the content of the source document (i.e. in the system of Silverbrook '573, a netpage printer is able to receive a page description, or print instructions, describing the content of a document. The content in Silverbrook '573 refers to the physical graphics and images that can be seen on the sheet when printed. This printed page is referred to as a netpage; see col.

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1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67 and col. 8, lines 1-35);

processing means for generating a set of different patterns or portions of pattern (i.e. in the system, different sets of coded data, or tags, can be developed in the system. These tags represent the portion of the image that they are located. Since the tags can be on a subregion or on the whole of the document, the feature of different patterns of position identification markings is performed; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35, col. 13, lines 1-67, and col. 14, lines 1-43); and

printing means for printing a plurality of copies of the source document in which each printed copy comprises both the content of the source document and one of the patterns of the set (i.e. in order to distinguish different users who may choose to have the same visible layout, the system gives these layouts different coded data, or tags. The different coded data, or tags, are arranged differently for each netpage. The system is able to allow printing of a plurality of copies of a document with different sets of coded data, or tags, embedded within them; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35, col. 13, lines 1-67, and col. 14, lines 1-43).

Re claim 34: The teachings of Silverbrook '573 are disclosed above.

Silverbrook '573 discloses the apparatus of claim 33 which comprises a printer in which the processing means for adding pattern resides at the printer (i.e. at the printer, there

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can be a storage medium that stores the layout information of the coded data, or tags, that are analogous to the pattern. The processor and RIP on the printer are both utilized to add the coded data to the document data in the printer; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35, col. 13, lines 1-67, and col. 14, lines 1-43).

Re claim 35: The teachings of Silverbrook '573 are disclosed above.

Silverbrook '573 discloses apparatus according to claim 33 in which the processing means for adding pattern comprises a computer program which resides on a host computer connected to the printing means (i.e. on the server, considered as a host computer, is a program that is capable of adding coded data to the netpage data in order for the coded data to be added to the netpage when the document is sent to the printer the server is connected to for printing; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35, col. 13, lines 1-67, and col. 14, lines 1-43).

Re claim 36: The teachings of Silverbrook '573 are disclosed above.

Silverbrook '573 discloses apparatus according to claim 35 in which the computer program comprises a printer driver (i.e. the software used by both the printer and the server is used to drive the functions of the netpage printer to produce a netpage and both are considered to be printer drivers; see figs. 1-4; see col. 1, lines 55-67, col. 2,

lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35, col. 13, lines 1-67, and col. 14, lines 1-43).

Re claim 49: Silverbrook '573 discloses an interface surface printer comprising at the host device:

generating a set of print instructions which comprise instructions that define the content of the document to be printed and at least one pattern instruction which indicates that a pattern is to be included in the printed documents (i.e. when the printer receives interaction from the netpage pen to edit a document to be printed, the printer sends the request to the server. The server, considered as the host device, has an application stored on the server. The printer sends the server the document, which defines the changes that occurred to the document and the overall page description of the document. The page description is sent to a relevant server for interpretation and then the document is further processed before being sent back to the printer; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35 and col. 14, lines 1-43), the instructions being provided in a language that can be interpreted by a printer (i.e. the server communicates to the printer in a language that the printer can interpret and understand; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35, col. 13, lines 1-67, and col. 14, lines 1-43);

sending the set of print instructions to a printer connected to the host device (i.e. the servers used in the system send print instructions to the printer connected to the

netpage network. The servers are considered to be host devices; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35, col. 13, lines 1-67, and col. 14, lines 1-43); and

at the printer processing the print instructions to create the document to be printed including a pattern identified by the at least one pattern instruction (i.e. once the printer receives the print instructions from a respective server, the printer creates a netpage with tag data printed with the visible content. Tags, analogous to the patterns, are identified by the print instructions, which include instructions for both the graphic data and the coded data; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35, col. 13, lines 1-67, and col. 14, lines 1-43).

Re claim 50: Silverbrook '573 discloses an interface surface printer comprising:

a printing application stored on a host device which is arranged to receive a file defining the content of the document and to generate a set of print instructions which comprise instructions that define the content of the document to be printed and at least one pattern instruction which indicates that a pattern is to be included in the printed documents (i.e. when the printer receives interaction from the netpage pen to edit a document to be printed, the printer sends the request to the server. The server, considered as the host device, has an application stored on the server. The printer sends the server the document, which defines the changes that occurred to the document and the overall page description of the document. The page description is

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sent to a relevant server for interpretation and then the document is further processed before being sent back to the printer; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35 and col. 14, lines 1-43), and

a printer which includes interpreting means for interpreting the instructions provided in the set of print instructions to produce the document to be printed including a pattern identified by the at least one pattern instruction (i.e. once the printer receives the print instructions from a respective server, the printer creates a netpage with tag data printed with the visible content. The printer interprets the print instructions and uses the information to create the netpage document. Tags, analogous to the patterns, are identified by the print instructions, which include instructions for both the graphic data and the coded data; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35, col. 13, lines 1-67, and col. 14, lines 1-43).

Re claim 53: Silverbrook '573 discloses an interface surface printer comprising at the host device:

generating a set of print instructions which comprise instructions that define the content of the document to be printed and a plurality of pattern instructions which each indicate the location of at least one position identification marking in the document (i.e. when the printer receives interaction from the netpage pen to edit a document to be printed, the printer sends the request to the server. The server, considered as the host

device, has an application stored on the server. The printer sends the server the document, which defines the changes that occurred to the document and the overall page description of the document. The page description is sent to a relevant server for interpretation and then the document is further processed before being sent back to the printer; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35 and col. 14, lines 1-43),

the instructions being provided in a language that can be interpreted by a printer (i.e. the server communicates to the printer in a language that the printer can interpret and understand; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35, col. 13, lines 1-67, and col. 14, lines 1-43);

sending the set of print instructions to a printer connected to the host device (i.e. the servers used in the system send print instructions to the printer connected to the netpage network. The servers are considered to be host devices; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35, col. 13, lines 1-67, and col. 14, lines 1-43); and

at the printer processing the print instructions to produce a bitmap image of the document to be printed including a pattern which includes a plurality of position markings provided at the locations indicated by the pattern instructions included in the set of print instructions (i.e. in the instructions to print a document are both the coded data and the graphic data instructions. Once the instructions are at the printer, the RIP at the printer creates bitmap information of both the graphic image data and the coded

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data, or tag information. The tag information can include a plurality of tags provided at various locations within a document that was indicated by the document and page instances in the print instructions; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35, col. 13, lines 1-67, and col. 14, lines 1-43).

Re claim 54: Silverbrook '573 discloses an interface surface printer comprising:

a printing application stored on a host device which is arranged to receive a file defining the content of the document and to generate a set of print instructions which comprise instructions that define the content of the document to be printed and a plurality of pattern instructions which each indicate the location of at least one position identification marking in the document (i.e. when the printer receives interaction from the netpage pen to edit a document to be printed, the printer sends the request to the server. The server, considered as the host device, has an application stored on the server. The printer sends the server the document, which defines the changes that occurred to the document and the overall page description of the document. The page description is sent to a relevant server for interpretation and then the document is further processed before being sent back to the printer. Also, the instructions indicating the tags to be in the document can have at least one marking in the document for each tag represented in the print instructions; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35 and col. 14, lines 1-43),

the instructions being provided in a language that can be interpreted by a printer (i.e. the server communicates to the printer in a language that the printer can interpret and understand; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35, col. 13, lines 1-67, and col. 14, lines 1-43); and

a printer which includes interpreting means for interpreting each of the pattern instructions provided in the set of print instructions to produce a bitmap image of a position identification marking to be printed at a location indicated by the pattern instruction, the pattern instructions being independent of the resolution of the printer (i.e. once the printer receives the print instructions from a respective server, the printer creates a netpage with tag data printed with the visible content. The printer interprets the print instructions and uses the information to create the netpage document. Tags, analogous to the patterns, are identified by the print instructions, which include instructions for both the graphic data and the coded data. In the instructions to print a document are both the coded data and the graphic data instructions. Once the instructions are at the printer, the RIP at the printer creates bitmap information of both the graphic image data and the coded data, or tag information. The tag information can include a plurality of tags provided at various locations within a document that was indicated by the document and page instances in the print instructions. Since the tag instructions do not include specifications on resolution and the printer performs the proper tag reproduction at a set resolution, the resolution of the printer is independent of the print instructions; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines

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1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35, col. 9, lines 1-67, col. 13, lines 1-67, and col. 14, lines 1-43).

Claim Rejections - 35 USC § 103

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Silverbrook '573 in view of Wiebe '688 (US Pat No 6586688).

Re claim 9: The teachings of Silverbrook '573 are disclosed above.

Silverbrook '573 discloses the method of claim 6 in which the pattern comprises multiple instances of a single position identification marking provided at locations of a virtual grid across a portion of the document (i.e. in Silverbrook '573, looking at figure 6, a virtual grid is shown as an irregular triangular grid. Looking at figure 5, the tags that represent the single position identification markings are across the grid, which is also across a portion of the document; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35, col. 13, lines 1-67 and col. 14, lines 1-43), and in which the pattern instructions identify the position of each marking relative to the grid (i.e. the page and document instances included with the page description have the instructions for the printer of identifying the positions of

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each tag on the triangular grid shown in figure 6, which is a grid on a document; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35, col. 13, lines 1-67 and col. 14, lines 1-43).

However, Silverbrook '573 fails to teach a single position identification marking provided at locations offset from the intersections of a virtual grid across a portion of the document.

However, this is well known in the art as evidenced by Wiebe '688. Wiebe '688 discloses a single position identification marking provided at locations offset from the intersections of a virtual grid across a portion of the document (i.e. in Wiebe '688, shown in figure 2 are single position coding markings in a pattern that are offset in a virtual grid that is across a document; see figs. 1 and 2; col. 7, lines 36-67 and col. 2, lines 1-50)

Therefore, in view of Wiebe '688, it would have been obvious to one of ordinary skill at the time the invention was made to have a single position identification marking provided at locations offset from the intersections of a virtual grid across a portion of the document in order to markings located in respective quadrants defined by the intersections of the raster lines (as stated in Wiebe '688 col. 13, lines 14-30).

19. Claims 12 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Silverbrook '573 in view of Rijavec '596 (US Pub No 2004/0095596).

Re claim 12: The teachings of Silverbrook '573 are disclosed above.

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Silverbrook '573 discloses the method of claim 1 in which the set of instructions generated at the host device comprise job language instructions indicating that a pattern is to be included and/or instructions in a page description language defining the content (i.e. in the system, the server, considered as the host device, is used to send print job instructions to the printer that indicates that the printer should print image data with a specific type of coded data. Since the server may assign this job to the printer, the language spoken to the printer may be considered as a job language, since it instructs the printer about a print job and all apparatuses that communicate with a printer communicate in some language. Also shown in figure 4, the page description communicated to the printer by the server defines the coded data, or content, to be printed in the document; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35, col. 13, lines 1-67, and col. 14, lines 1-43).

However, Silverbrook '573 fails to teach printer job language (PJL).

However, this is well known in the art as evidenced by Rijavec '596. Rijavec '596 discloses printer job language (PJL) (i.e. in Rijavec '596, a job ticket, which describes the data perform the printing of a print job, can be expressed in a Printer Job Language. This can be sent from a server to a printer; see paragraph [0018]).

Therefore, in view of Rijavec '596, it would have been obvious to one of ordinary skill at the time the invention was made to have a printer job language (PJL) in order to have a job ticket expressed in a particular data stream (as stated in Rijavec '596).

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Re claim 19: The teachings of Silverbrook '573 are disclosed above.

Silverbrook '573 discloses the system of claim 16 in which the pattern instruction in the print instruction set comprises a command (i.e. the page description that includes the tag, which is considered the pattern instruction, is instructed by the information in the tag to print a specific tag with the overall image; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35, col. 13, lines 1-67 and col. 14, lines 1-43) and in which the RIP is provided with a function which is called by the command (i.e. the command that is sent to the printer is processed immediately by the RIP on the printer. The page description that is given to the printer and the page description is called by the command to be translated by the RIP in the device; see figs. 1-4; see col. 1, lines 55-67, col. 2, lines 1-30, col. 5, lines 1-67 and col. 6, lines 1-35, col. 7, lines 1-67, col. 8, lines 1-35, col. 13, lines 1-67 and col. 14, lines 1-43).

However, Silverbrook '573 fails to teach a PJP command.

However, this is well known in the art as evidenced by Rijavec '596. Rijavec '596 discloses a PJP command (i.e. since the print job language is used to give directions to the printer as to how a document is to be presented, these directions can be considered as commands to the printer. Also, since the server and receiver can be synchronized at a command level, using the previously mentioned languages, a PJP command is performed; see paragraph [0018]).

Therefore, in view of Rijavec '596, it would have been obvious to one of ordinary skill at the time the invention was made to have a PJP command in order to have

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controls transmitted that specify how data is to be presented (as stated in Rijavec '596 paragraph [0018]).

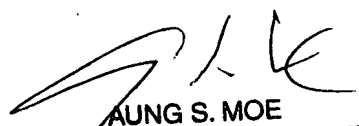
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chad Dickerson whose telephone number is (571)-270-1351. The examiner can normally be reached on Mon. thru Thur. 9:00-6:30 Fri. 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Aung Moe can be reached on (571)- 272-7314. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CD/ 
Chad Dickerson
September 12, 2007


AUNG S. MOE
SUPERVISORY PATENT EXAMINER
9/13/07